

Management of Mercury Containing Equipment

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An August 11, 2006 memo, signed by Department of Natural Resources Waste and Materials Management Program, allows staff to exercise discretion in enforcing the hazardous waste management requirements for waste mercury containing equipment that is managed according to the applicable [Universal Waste Management Standards in 40 CFR Part 273](#). Waste mercury containing equipment that is managed according to federal universal waste rule standards is eligible for reduced regulation as a *universal waste* in Wisconsin. This guidance document summarizes these reduced requirements.

Mercury-containing equipment means a device or part of a device that contains elemental mercury integral to its function. Examples of mercury containing equipment include, but are not limited to, electrical relays or switches, thermometers, thermocouples, gauges, barometers and manometers containing elemental mercury.

Handlers:

General Handler Standards. Universal waste handlers include generators and owners or operators that receive, accumulate or send universal waste to other handlers, or destination facilities. Handlers who choose to manage mercury containing equipment as universal waste in the State of Wisconsin need to:

- Ensure the waste is recycled.
- Manage the waste in a way that prevents releases to the environment.
- Ensure that containers are closed, structurally sound and compatible with the contents.
- Label or mark each device, or a container in which the equipment is contained, as “Universal Waste—Mercury Containing Equipment,” “Waste Mercury-Containing Equipment,” or “Used Mercury-Containing Equipment.”
- Demonstrate the length of time the waste has been accumulated on-site. Handlers may accumulate waste on-site for up to one year. Handlers may accumulate waste for more than one year only if they can demonstrate that the additional time is needed for to facilitate proper recovery, treatment or disposal.
- Train employees on proper handling and emergency procedures.
- Respond to spills and manage any resulting residues promptly and appropriately.
- Transport their waste to another waste handler, or destination facility; arrangements must be made prior to shipping the waste to another waste handler.

Large Quantity Handlers. Large quantity handlers, handlers accumulating 5,000 kilograms (11,023 lbs.) or more total of universal waste, need to meet the following additional standards:

- Keep records to document compliance with this guidance.
- Obtain an EPA identification number.

Specific Handler Standards. There are several different ways that mercury may be contained in equipment. For example, some devices contain mercury in sealed housings or sealed ampules. Other devices contain mercury in open housings. Because the degree of risk varies greatly between these different types of devices, different management standards were developed for each category to assure protection of human health and the environment. Handlers should manage universal waste mercury containing equipment in a way that prevents releases to the environment, as follows:

- Unsealed mercury equipment, equipment with open housings and unsealed ancillary equipment with mercury residue may be managed as universal waste if the unit itself can be sealed or the entire unit can be placed in a container that is closed, structurally sound, compatible with the contents of the device and designed to prevent the release of mercury.
- Leaking equipment should be managed in containers that will not allow escape of mercury to the environment. The containers must be closed, structurally sound, compatible with the contents of the device and designed to prevent the release of mercury.
- Sealed mercury containing devices and ampules must be managed to minimize breakage and must be managed in containers that prevent the escape of mercury if breakage does occur.
- Handlers that remove mercury ampules from equipment need to:
 - Remove and manage ampules in a manner designed to prevent breakage.
 - Remove the ampules only over or in a containment device.
 - Ensure that a mercury clean-up system is readily available to immediately transfer spill residues to a container.
 - Ensure that employees removing ampules are familiar with mercury handling and emergency procedures including transfer of mercury from containment devices into appropriate containers.
 - Ensure that the work area is well ventilated and meets applicable OSHA exposure levels for mercury.
 - Store ampules in closed, non-leaking containers that are in good condition.
 - Pack removed ampules in the container with packing materials to prevent breakage during storage, handling and transportation.
- Handlers that remove liquid mercury from unsealed equipment need to:
 - Follow the requirements for removing and managing ampules.
 - Immediately seal the original housing and manage it in the same manner as an ampule. If the device can't be sealed to prevent releases of mercury, it is not eligible for management as universal waste.
 - Manage the mercury removed from the equipment as universal waste.
- Handlers must determine if spill residue or devices remaining after the mercury has been removed are solid or hazardous waste and manage the waste accordingly.

Transporters: Persons who wish to transport mercury containing equipment need to:

- Comply with all applicable United States and Wisconsin Department of Transportation regulations, including but not limited to, packaging, labeling, marking and placarding requirements.
- Comply with handler requirements if waste is stored for more than 10 days.
- Respond to releases and manage residues promptly and appropriately.
- Transport universal waste to a handler or destination facility.
- Ensure that tools or equipment used to load or unload waste will not damage the effectiveness of the closure of any container.
- Ensure that containerized waste is loaded in such a manner that the containers are reasonably secured against movement within the transport vehicle.

Handlers and transporters that dilute, treat or dispose of waste covered by this memo are subject to full hazardous waste regulation.

Destination Facilities. Destination facilities are facilities that treat, dispose or recycle universal wastes. A facility at which a particular category of universal waste is only accumulated is not a destination facility, but is considered to be a handler. Destination facilities are subject to full hazardous waste regulation.

Contact 608/266-2111 or Waste.Materials@dnr.state.wi.us for further information.

Disclaimer

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